

6456938

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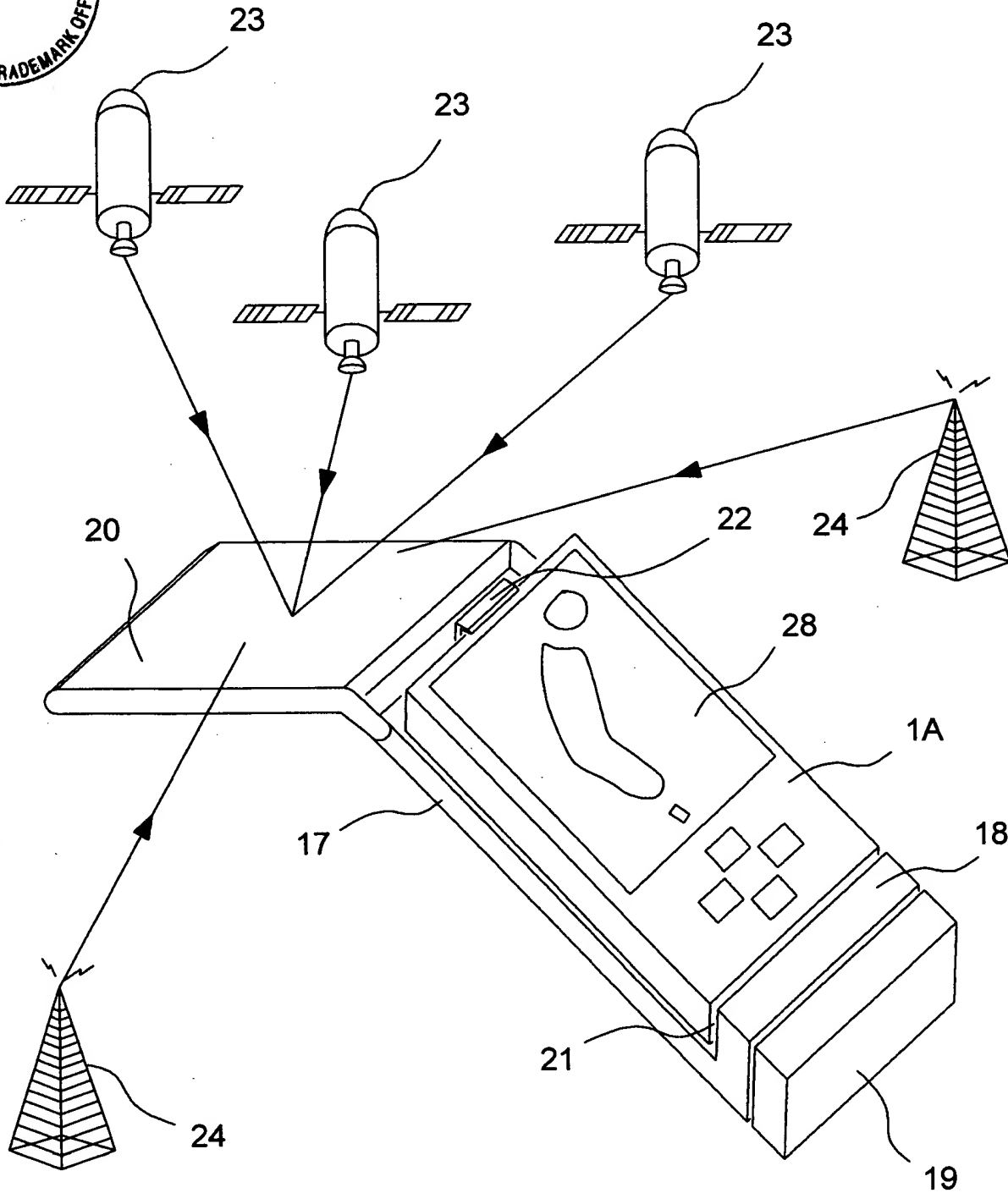


FIG. 1

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Inventor(s): Kent Deon Barnard

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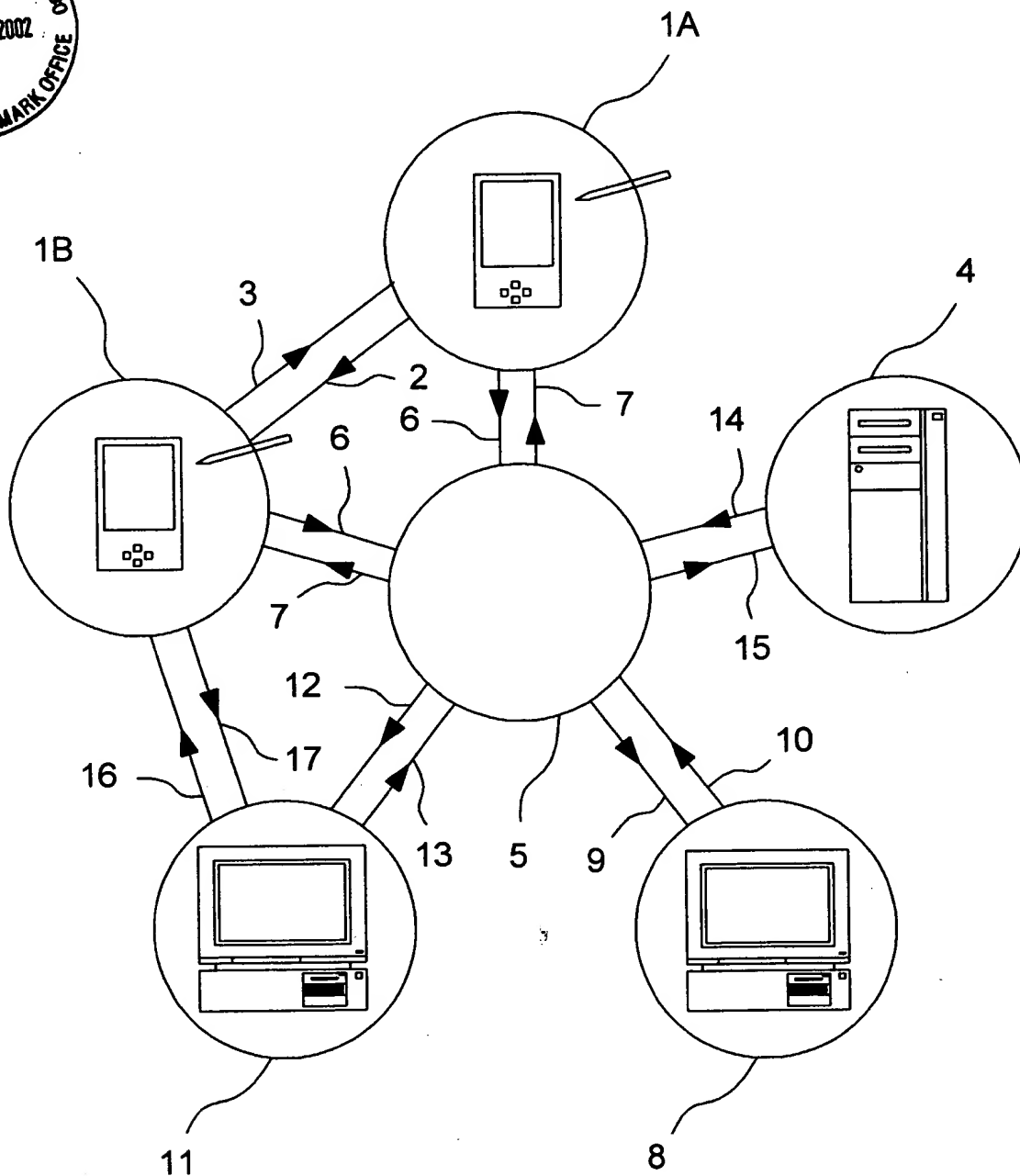
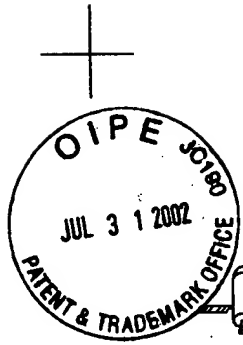


FIG. 2



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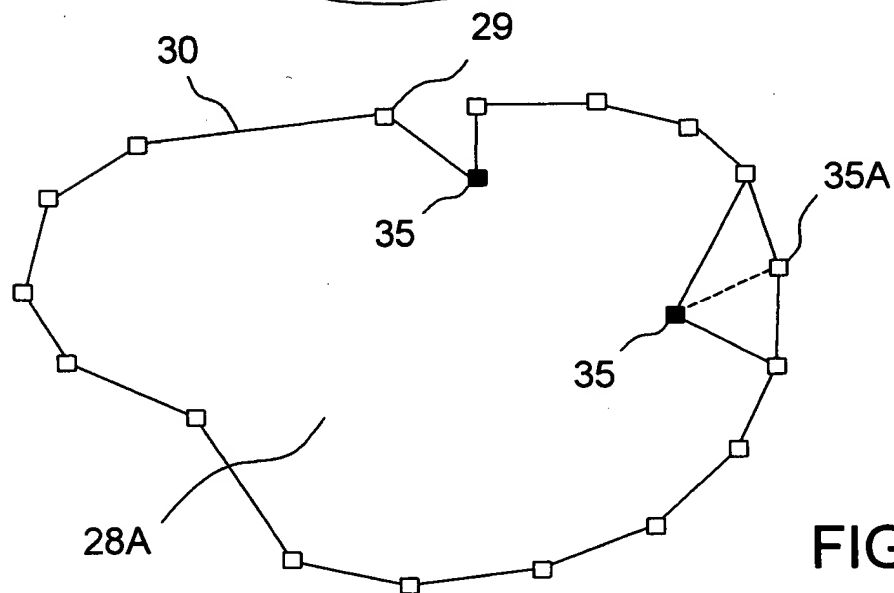
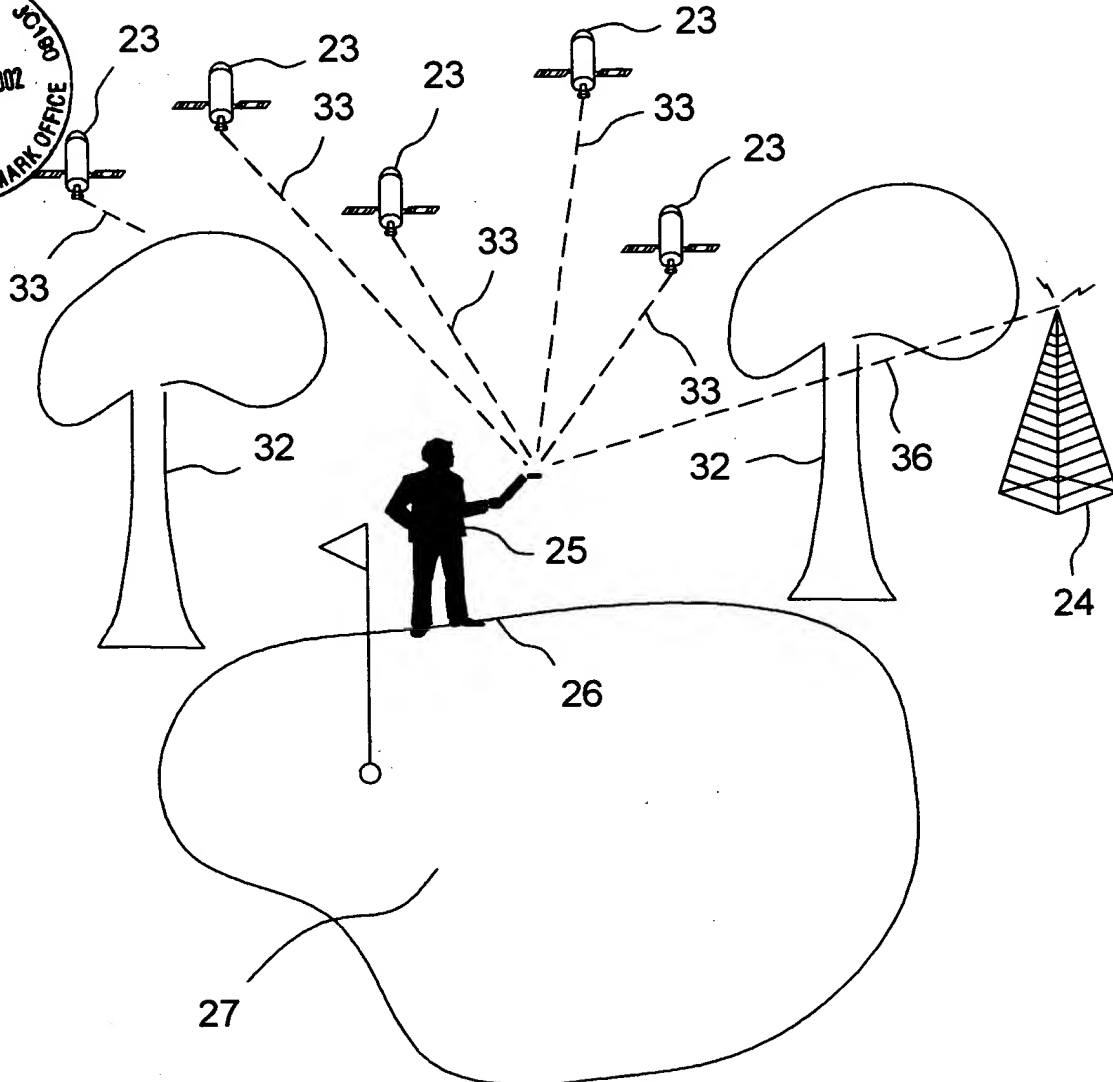


FIG. 3

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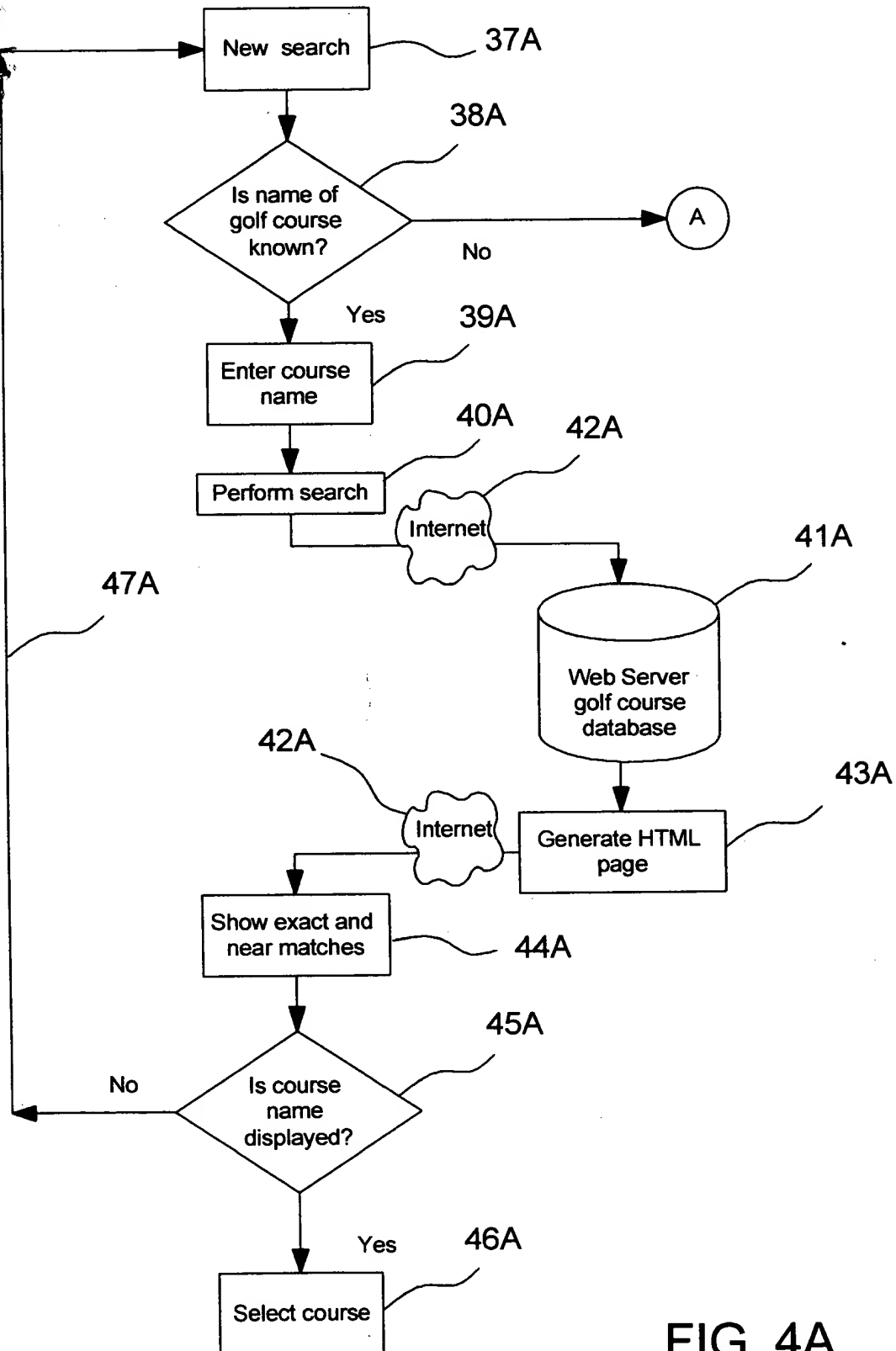
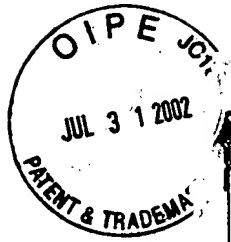


FIG. 4A

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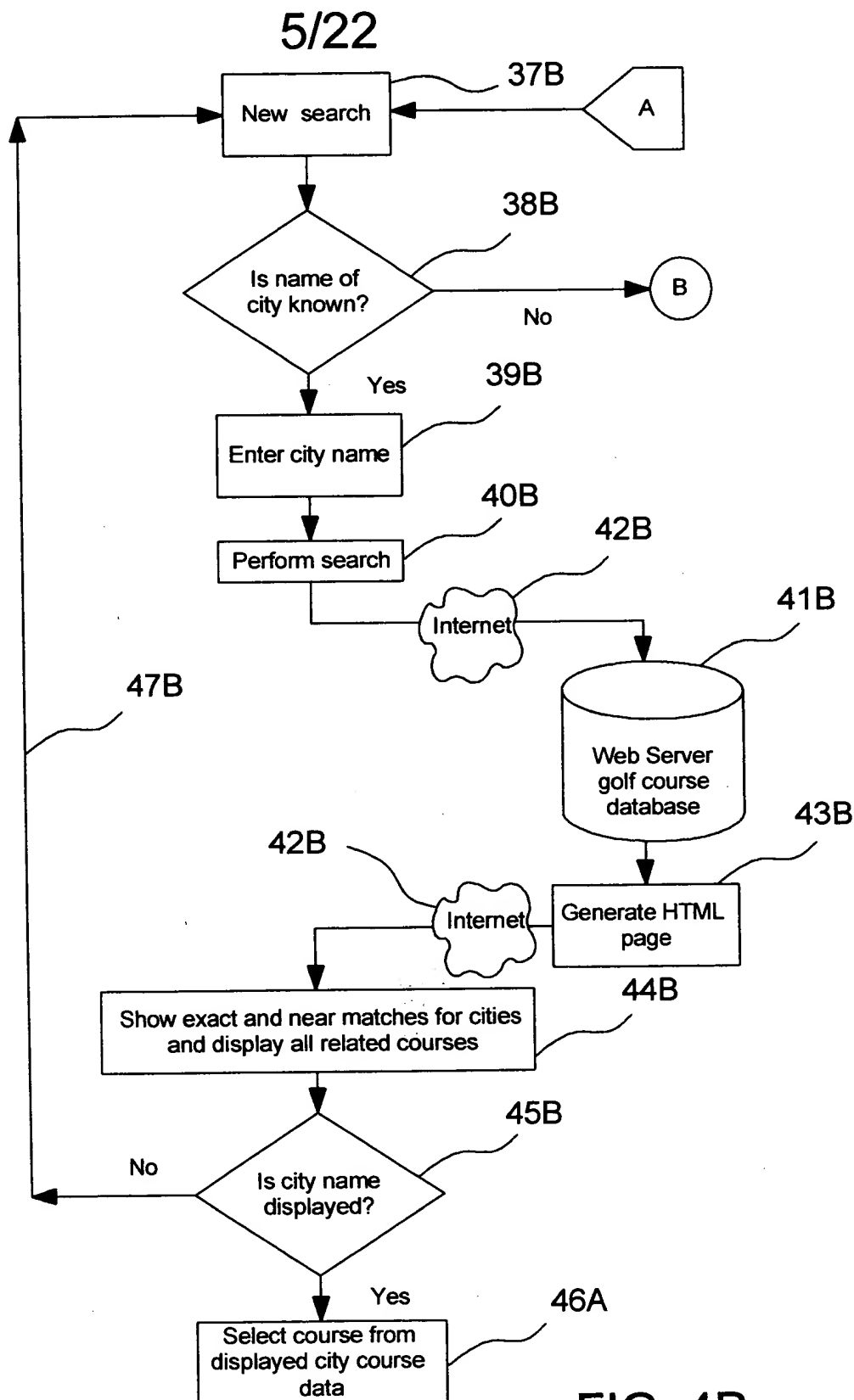


FIG. 4B

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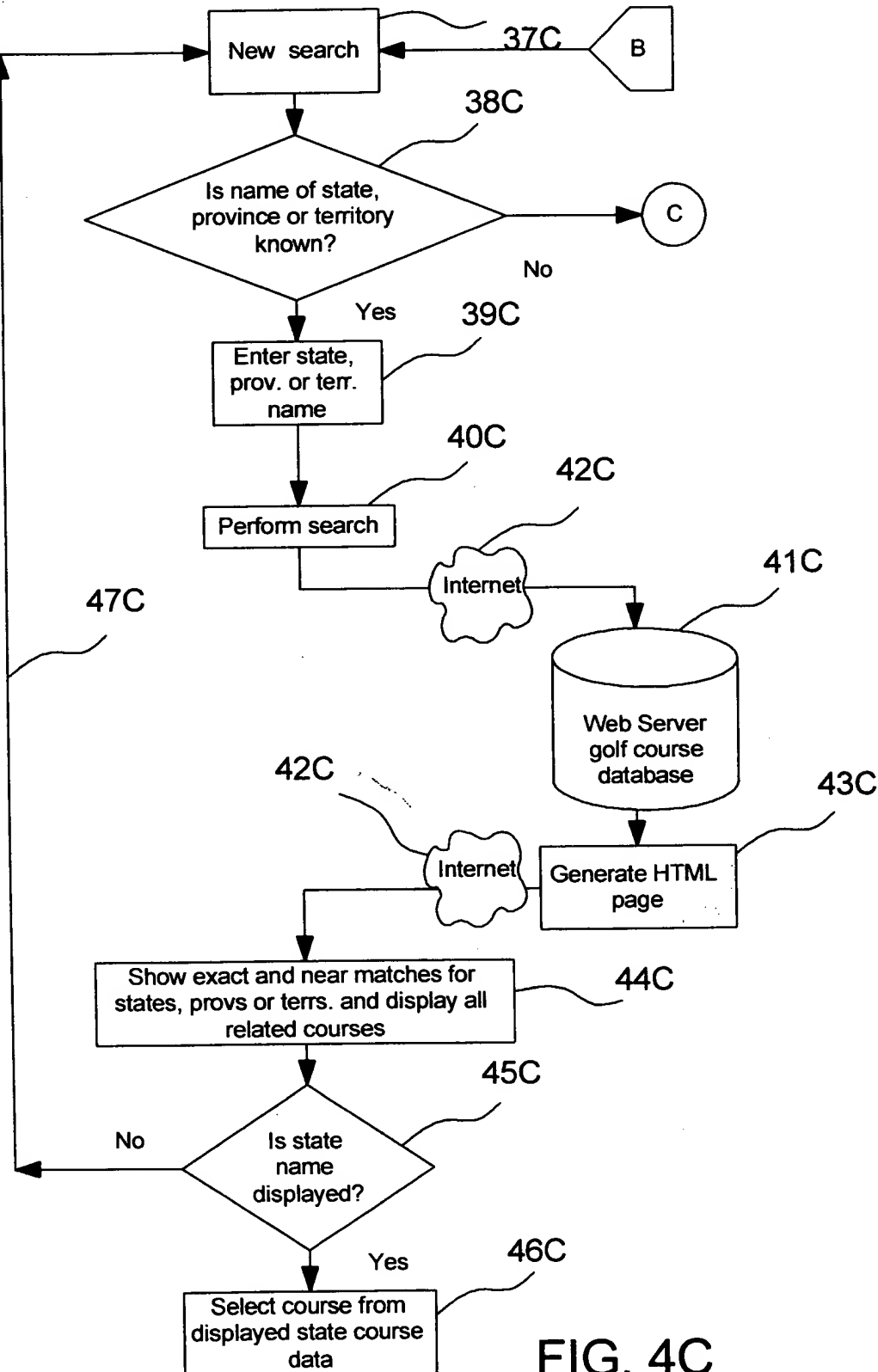


FIG. 4C

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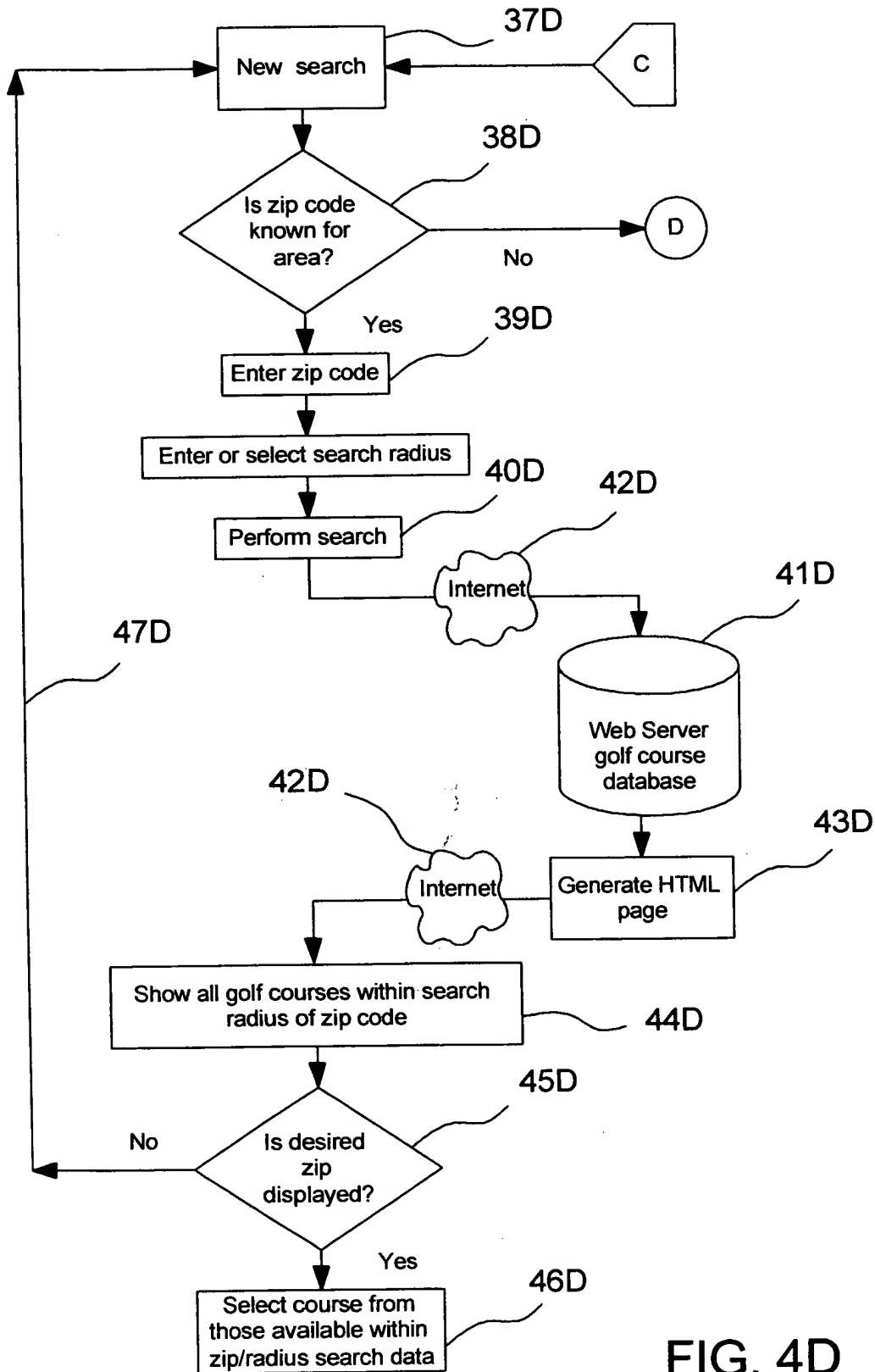


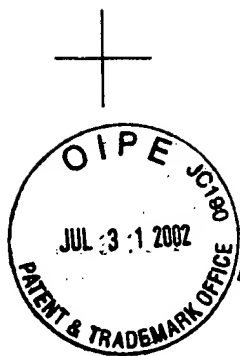
FIG. 4D

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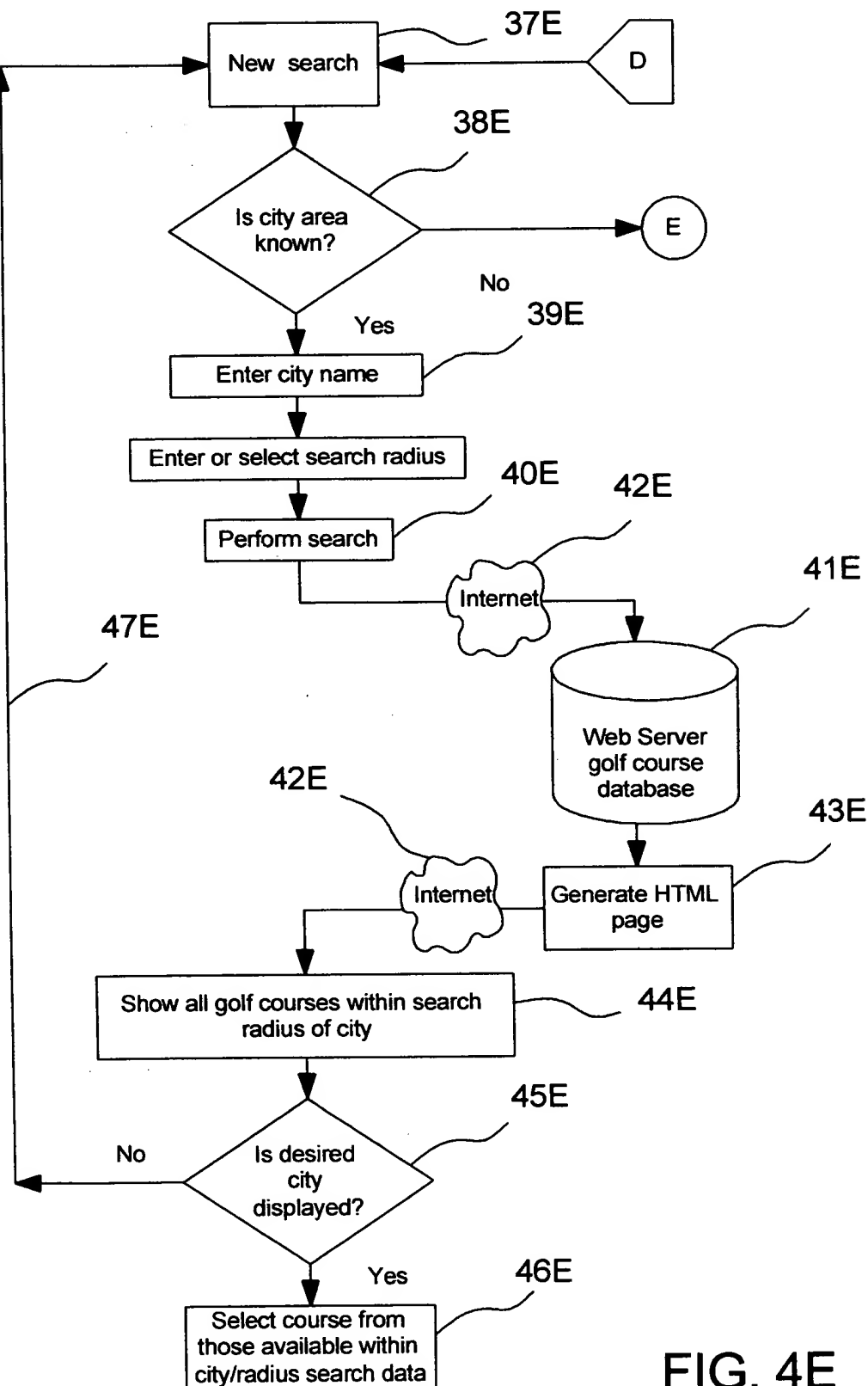


FIG. 4E

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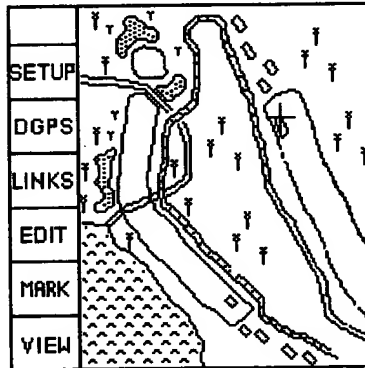


FIG. 5

	SETUP	UNITS	SETUP	SPEED
SETUP >	UNITS >	METER	UNITS >	WALK
DGPS >	SPEED >	YARD	SPEED >	RIDE
LINKS >				
EDIT >				
MARK >		SAVE		SAVE
VIEW >	MAIN	CANCL	MAIN	CANCL

FIG. 6

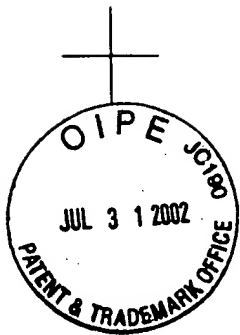


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	LINKS
SETUP >	NEW >
DGPS >	OPEN >
LINKS >	CLOSE >
EDIT >	
MARK >	EXIT
VIEW >	BACK

FIG. 7

	EDIT	DELETE
SETUP >	DELET >	ALL
DGPS >	NOTE >	POINT
LINKS >	MOVE >	
EDIT >	ADD >	APPLY
MARK >		SAVE
VIEW >	CANCL	CANCL

FIG. 8

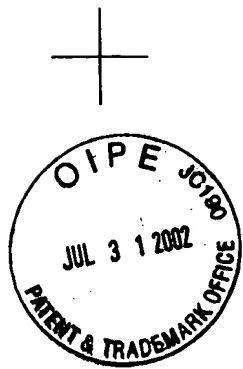


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	EDIT	NOTE
SETUP >	DELET >	
DGPS >	NOTE >	
LINKS >	MOVE >	
EDIT >	ADD >	
MARK >		SAVE
VIEW >	CANCL	CANCL

FIG. 9

	EDIT	MOVE
SETUP >	DELET >	
DGPS >	LABEL >	
LINKS >	MOVE >	
EDIT >	ADD >	
MARK >		SAVE
VIEW >	CANCL	CANCL

FIG. 10

Personal DGPS Golf Course Cartography Navigator
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SETUP >	EDIT DELET >	ADD END
DGPS >	LABEL >	MIDDL
LINKS >	MOVE >	
EDIT >	ADD >	APPLY
MARK >		SAVE
VIEW >	CANCL	CANCL

FIG. 11

SETUP >	AREA TEE	A or L BUNKR	A/L/Pt TREE	LINE PATH	POINT PIN
DGPS >	FRWAY	ROUGH	BUSH	OB	C-o-G
LINKS >	GREEN	WATER	ROCK	DITCH	
EDIT >	HOLE	BLDG	MOUND		
MARK >					
VIEW >	BACK		OTHER		

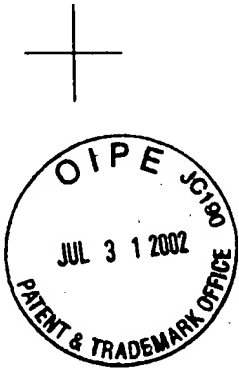
FIG. 12

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XXXXXX	BEGIN	PAUSE
		MARK
		>
BEGIN	PAUSE	RESUM
>		
	END	END
CANCL	CANCL	CANCL

FIG. 13

XXXXXX	BEGIN	PAUSE
		MARK
		>
BEGIN	PAUSE	RESUM
>		
POINT	END	END
CANCL	CANCL	CANCL

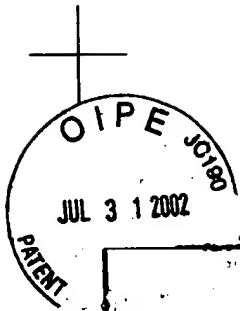
FIG. 14

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	TEE	FRWAY	GREEN	HOLE	BUNKR	ROUGH	WATER	TREE	BUSH	ROCK	MOUND	OTHER	PATH	OB	DITCH	CoG	FoG	PIN
Area	X	X	X	X	X	X	X	X	X	X	X	X						
Line					X	X	X	X	X	X	X	X	X	X	X			
Point								X	X	X	X	X				X	X	X
Hole Association	X	X	X	X	X	O	O	O	O	O	O	O	O	O	O	X	X	X

Mapping log rate (Hz)

Walking	1	1/3	1	1/3	1	1	1	na	na	na	na	1	1/3	1/3	1	na	na	na
Riding	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

FIG. 15

	VIEW	ZOOM	VIEW	PAN
SETUP >	ZOOM >	IN	ZOOM >	◀
DGPS >	PAN >	OUT	PAN >	▶
LINKS >	ME	LINKS	ME	▲
EDIT >				▼
MARK >		BACK		BACK
VIEW >	MAIN	MAIN	MAIN	MAIN

FIG. 16



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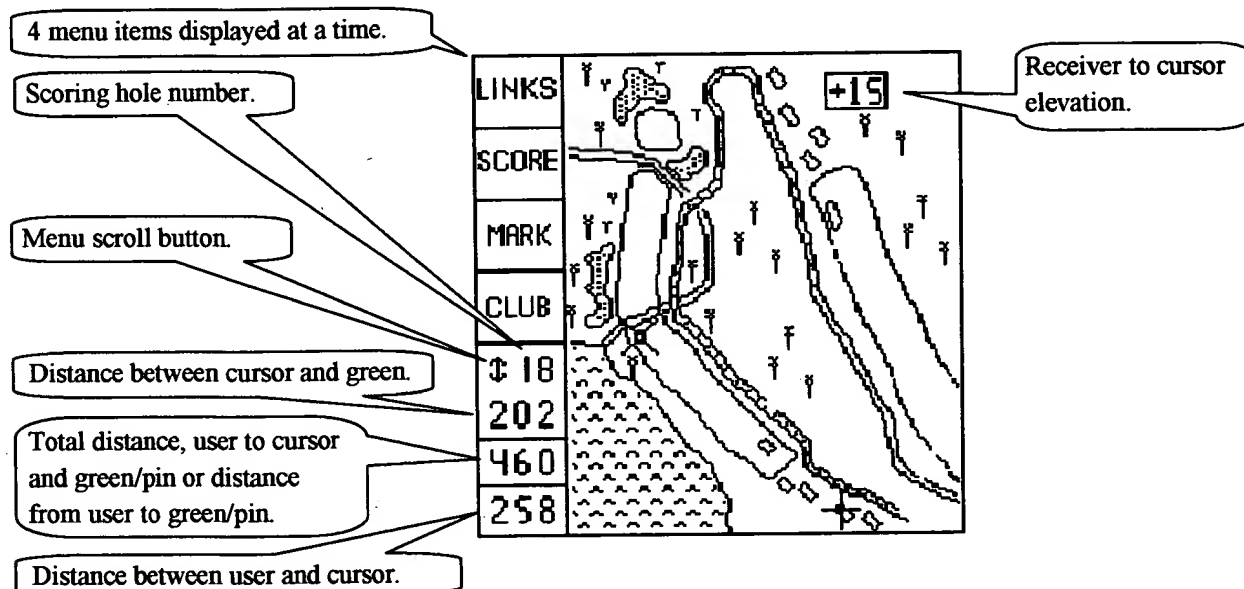


FIG. 17

SETUP		
>		
DGPS		
>		
LINKS		
>		
SCORE	SETUP	XXXXX
>	CLUBS	
MARK	>	
>	OTHER	
CLUB	>	
>		
VIEW		
>		
◆ 18		SAVE
202		
460	MAIN	CANCL
258		

FIG. 18



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Mark Green Strokes

☒ Yes ☐ No

Green Reference Point

☒ Daily Pin Placement
☐ Center of Green
☐ Front of Green

System Units

☒ English US (Yards)
☐ Metric (Meters)

Cursor Ghost Lines

☐ On ☒ Off

Display Elevation Window

☐ Yes ☒ No

Default Target Cursor Distance: 999

☐ feet ☒ meters

Antenna Height: 999

Concentric Rover Circles

☐ On ☒ Off
☐ yards/meters ☒ feet

FIG. 19

SETUP	>	
DGPS	>	
LINKS	>	
SCORE	>	
MARK	>	
CLUB	>	
VIEW	>	
◆ 18		
202		
460		
258		

LINKS
SAVE
CANCL

Pine Hills Country Club
◆ Rating: 69.9 Slope: 126
Number: 1
◆ Par: 9 Handicap: 99
Color: Gold
◆ Advertised Yardage: 999

FIG. 20

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SETUP >	SCORE	PUTTS	Hole Number: 7		
DGPS >	PUTTS >	PUTTS	1	2	3
LINKS >	PNLTY >		4	5	6
SCORE >	EDIT		7	8	9
MARK >	NEW ROUND			0	
CLUB >		SAVE			
VIEW >	MAIN	CANCL			
◆ 18 202					
460					
258					

FIG. 21

SETUP >	MARK LIE >
DGPS >	TARGET >
LINKS >	CUP
SCORE >	
MARK >	SAVE
CLUB >	CANCL
VIEW >	
◆ 202	
460	
258	

FIG. 22

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SETUP
 >
 DGPS
 >
 LINKS
 >
 SCORE
 >
 MARK
 >
CLUB
5I 150>
 VIEW
 >
 ◆ 18
 202
 460
 258

CLUB	1W 999 99 ◀ 99 ▶ 99	4I 999 99 ◀ 99 ▶ 99	PW 999 99 ◀ 99 ▶ 99
	3W 999 99 ◀ 99 ▶ 99	<u>5I 150</u> 25 ◀ 75 ▶ 15	SW 999 99 ◀ 99 ▶ 99
	5W 999 99 ◀ 99 ▶ 99	6I 999 99 ◀ 99 ▶ 99	LW 999 99 ◀ 99 ▶ 99
DUFF SHOT	1I 999 99 ◀ 99 ▶ 99	7I 999 99 ◀ 99 ▶ 99	
SAVE	2I 999 99 ◀ 99 ▶ 99	8I 999 99 ◀ 99 ▶ 99	
CANCL	3I 999 99 ◀ 99 ▶ 99	9I 999 99 ◀ 99 ▶ 99	

Club

Average stroke
length with this
club.

Average distance
left of target line
with this club
(yds).

% Left or right
of target line
with this club.

Arrow in
direction of
greater %
error (either
left or right).

Average distance
right of target line
with this club
(yds).

FIG. 23

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	VIEW	ZOOM	VIEW	PAN
SETUP >	ZOOM >	IN	ZOOM >	◀
DGPS >	PAN >	OUT	PAN >	▶
LINKS >	ME	AUTO	ME	▲
EDIT >		COURSE		▼
MARK >				BACK
VIEW >	MAIN	BACK	MAIN	MAIN

FIG. 24

Target Cursor	Point	×
Lie Marker	Point	+
Target Marker	Point	*
Pin	Point	!

FIG. 25

	DGPS	Diff	PICK
SETUP >	Diff >	AUTO	SCAN
DGPS >	GPS	PICK >	
LINKS >		VER#	
EDIT >			
MARK >			SAVE
VIEW >	CANCL	BACK	CANCL

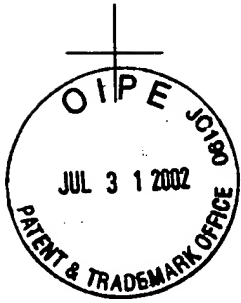
FIG. 26

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PICK			
SCAN	Transmitter Location	Signal Strength/Signal to Noise Ratio	Distance (miles)
	St Louis MO	----- ---	65/25 73
	Rock Island, IL	----- ---	51/14 162
	Louisville, KY	----- --	43/12 105
SAVE	Memphis, TN	----- --	39/11 135
CANCL	Kansas City, MO	--- -	15/5 187

FIG. 27

MSG	Data	Format
GGA	UTC of Position	hhmmss.ss
GGA	Latitude, Direction	ddmm.mmmmmm, X
GGA	Longitude, Direction	dddmm.mmmmmm, X
GGA	Quality 1. Autonomous Position (GPS SPS mode) 2. RTCM differential corrected position	9
GGA	# of Satellites in use	99
GGA	HDOP	
GGA	Age of Differential	999
GGA	Diff. Station ID	9999
RMC	Status (Null, A, V)	X
RMC	Date	mmddyy

FIG. 28

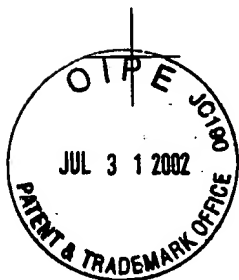


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Feature	Type	Symbol
Hole	Area	na
Tee Box	Area	Solid line
Green	Area	Solid line
Fairway	Area	Solid line
Rough	Area	na
Ditch	Line1	Solid line
Building	Area	Solid line
Bunker	Area	
Water	Area	
Bush	Point	
Tree	Point	
Rock	Point	na
Mound	Point	na
Cart Path	Line3	6' wide solid line
Out of Bounds	Line2	
Flag or Pin	Point	
Area too small to display	Area	
Current Location	Point	

FIG. 29



